at a Gateway (GW) of the UTRAN, segmenting RLC Service Data Units (SDUs) into RLC PDUs for transmission to at least one Base Station (BS) of a set of BSs belonging to a handover link set, and combining RLC PDUs received from the at least one BSs into RLC SDUs for transmission to a core network of the system; and

at each of the at least one BS, buffering RLC PDUs received from at least one of the GW and the UE, and implementing an ARQ mechanism at each of the at least one BS to facilitate reliable transmission of RLC PDUs between the UE and the GW, the ARQ mechanism utilizing ARQ status messages sent over the air interface, between the UE and the BS(s), in order to acknowledge successfully transmitted data packets and request retransmission of unsuccessfully transmitted data packets.

11. (Amended) A mobile telecommunications system comprising a UMTS Terrestrial Radio Access Network (UTRAN) and, located in the UTRAN:

a Gateway (GW) arranged to segment RLC SDUs into RLC PDUs for transmission to at least one [or more Base Stations (BSs)] Base Station (BS) of a set of BSs belonging to a handover link set, and to combine RLC PDUs received from at least one of the [or more of those] BSs into RLC SDUs for transmission to a core network of the system; and

a plurality of Base Stations (BSs) arranged to form a soft handover link set for a given User Equipment (UE), each said BS being arranged to buffer RLC PDUs received from at least one of the GW and the UE and to implement an ARQ mechanism at each of the at least one BS to facilitate reliable transmission of RLC PDUs between the UE and the GW, the ARQ mechanism utilizing ARQ status messages sent over the air interface, between the UE and the BS(s), in order to acknowledge successfully transmitted data packets and request retransmission of unsuccessfully transmitted data packets.

